



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

EXECUTIVE SUMMARY

CHICAGO/CID #2 AND PUG MILL 134TH STREET AND CALUMET EXPRESSWAY CHICAGO, IL 60633

The CID #2 site is on 173 acres of land located north of 134th Street in Chicago. The landfill portion of the site is bordered by the Little Calumet River to the east and the Calumet Expressway to the west. The Pug Mill is located less than one-quarter mile south of the 134th Street border.

CID #2 is an active landfill facility (Disposal Area #3) that is used for disposal of municipal refuse and has allegedly been used for co-disposal of chemical wastes with solid municipal wastes. The Pug Mill consists of an acid neutralization and chemical fixation System. The pug is collected after treatment and transported to the landfill for co-disposal.

CID #1 is a separate site located south of CID #2 and consists of Disposal Areas 1, 2, and 4. Disposal Areas 1 and 2 are inactive and contain 150 acres of completely filled land. Disposal Area 4 is the current hazardous waste landfill.

A CID Processing Area also exists south of CID #2. Processing involves treatment and storage of wastes. The treatment area includes the Pug Mill facility and the Aqueous Waste Dewatering System. Storage occurs in ponds near the Pug Mill and also in the drum transfer station.

EPA Region 5 Records Ctr.



304122

The entire CID facility is owned by Waste Management, Inc. (WMI). Waste Management operates the CID #2 landfill and Chemical Waste Management (Calumet City, IL) operates the treatment area. There exists some confusion as to whether or not the Aqueous Waste Dewatering System should be included with the CID #1 site or with the CID #2/Pug Mill site. According to the Illinois Environmental Protection Agency, the U.S. EPA does not recognize a separation between CID #1 and CID #2.

The main environmental routes of concern from the CID #2 site consist of surface water and groundwater. Landfilling and "fly dumping" have allegedly occurred at the CID #2 landfill prior to WMI operations. Some of the lined disposal trenches are located within this area of uncontrolled landfilling and dumping. Groundwater monitoring wells on-site have shown some contamination. This contamination could be attributable to the previous landfilling activities.

The Little Calumet River - located adjacent to the site - is used for recreation. Although most drinking water in the area is obtained from Lake Michigan, some drinking water wells exist approximately one-half mile from the site.

According to an IEPA representative, hazardous waste is still being accepted at the Pug Mill, but it has not been accepted at the CID #2 landfill since 1982. However, IEPA special Waste Disposal Reports indicate that hazardous waste was accepted at CID #2 in 1983 and 1985.

A medium priority for inspection is recommended. The site inspection should attempt to clarify site boundaries and hazardous waste activity. Further information must be collected regarding the groundwater monitoring system and soils at the site in order to assess the potential for contamination of private wells in the area. Sampling of site monitoring wells should also be included.



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
IL D

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Chicago / CID #2 and Pug Mill		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 134 th street and Calumet Expressway			
03 CITY Chicago	04 STATE IL	05 ZIP CODE 60633	06 COUNTY Cook	07 COUNTY CODE C31	08 CONG DIST 02
09 COORDINATES LATITUDE 41° 39' 05.0"		LONGITUDE 087° 34' 01.0"		Lake Calumet Quadrangle	
10 DIRECTIONS TO SITE (Starting from nearest public road) Calumet Expressway to 130 th Street East. The site is located between the Calumet Expressway (west), Little Calumet River (East), South Shore Railroad (North), and 134 th St. (South).					

III. RESPONSIBLE PARTIES

01 OWNER (if known) Waste Management of Illinois, Inc. (WMI)		02 STREET (Business, mailing, residential) 3003 Butterfield Road			
03 CITY Oak Brook	04 STATE IL	05 ZIP CODE 60521	06 TELEPHONE NUMBER 1312 654-8800		
07 OPERATOR (if known and different from owner) Waste Mgmt. of IL / Chemical Waste Mgmt.		08 STREET (Business, mailing, residential) P.O. Box 1296, 138 th and Calumet Expressway			
09 CITY Calumet City	10 STATE IL	11 ZIP CODE 60409	12 TELEPHONE NUMBER 1312 891-1500		
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: _____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: _____ MONTH DAY YEAR <input type="checkbox"/> C. NONE UNKNOWN					

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE 6, 3, 82 MONTH DAY YEAR <input type="checkbox"/> NO		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____			
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION BEGINNING YEAR _____ ENDING YEAR _____ <input checked="" type="checkbox"/> UNKNOWN			
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED Sludge (Toxic, Persistent) Solvents (Toxic, Flammable, Volatile) Organic Chemicals (Toxic, Persistent)		Inorganics (Persistent) Acids/Bases (Toxic, Soluble, Corrosive) Heavy Metals (Toxic, Persistent)			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION Ground Water (Population / Environment) Direct Contact (Population) Surface Water (Population / Environment)					

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) <input type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspect on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
---	--	--	--

VI. INFORMATION AVAILABLE FROM

01 CONTACT Cliff Gould		02 OF (Agency/Organization) Illinois EPA - DLPC		03 TELEPHONE NUMBER 1312 345-9780	
04 PERSON RESPONSIBLE FOR ASSESSMENT Cynthia Pugh		05 AGENCY —	06 ORGANIZATION E4E, Inc.	07 TELEPHONE NUMBER 1312 1663-9415	08 DATE 01, 10, 86 MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
IL D

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply): <input type="checkbox"/> A. SOLID <input type="checkbox"/> B. POWDER, FINES <input type="checkbox"/> C. SLUDGE <input type="checkbox"/> D. OTHER (Specify) _____ <input type="checkbox"/> E. SLURRY <input type="checkbox"/> F. LIQUID <input type="checkbox"/> G. GAS	02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent) TONS <u>see (*)</u> CUBIC YARDS _____ NO. OF DRUMS _____	03 WASTE CHARACTERISTICS (Check all that apply): <input type="checkbox"/> A. TOXIC <input type="checkbox"/> B. CORROSIVE <input type="checkbox"/> C. RADIOACTIVE <input type="checkbox"/> D. PERSISTENT <input type="checkbox"/> E. SOLUBLE <input type="checkbox"/> F. INFECTIOUS <input type="checkbox"/> G. FLAMMABLE <input type="checkbox"/> H. IGNITABLE <input type="checkbox"/> I. HIGHLY VOLATILE <input type="checkbox"/> J. EXPLOSIVE <input type="checkbox"/> K. REACTIVE <input type="checkbox"/> L. INCOMPATIBLE <input type="checkbox"/> M. NOT APPLICABLE
---	--	---

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	UNK	NA	Hazardous was allegedly co-disposed
OLW	OILY WASTE			with general municipal refuse in CID #2.
SOL	SOLVENTS	UNK		According to an IEPA Representative, CID
PSD	PESTICIDES			#2 no longer accepted haz. waste after 1982,
OCC	OTHER ORGANIC CHEMICALS	UNK		but it was continued to be accepted at
IOC	INORGANIC CHEMICALS	UNK		the Pug Mill. However, according to IEPA
ACD	ACIDS	UNK		Special Waste Disposal Reports, the
BAS	BASES	UNK		following quantities of haz. waste were
MES	HEAVY METALS	UNK	✓	allegedly accepted at CID #2 - See

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

(*) Chart Below.

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
ACD	Pickle Liquor	NA	Pickle Liquor - Stored	UNKNOWN	NA
	UNKNOWN		in east and west		
			lagoons near Pug Mill		
			• CO Disposal - 16 gallons		
	Heavy metals were		treated or liquid waste		
	detected in on-site		to 1 cubic yard of		
	monitoring wells according		refuse		
	to sample results dated		• Acidic and Alkaline		
	3/9/82.		Heavy Metal wastes -		
			Stored in north and		
			South lagoons		
			Refuse and "flydumping"		
			allegedly occurred in		
			site area prior to WMI		
			operations and state		

(*) Waste Quantity (Estimate: Gallons/year)

1981: 17,354,748

1982: 8,754,769

1983: 546,180

1984: 0

1985: 6,060

Est. Gallons all years: 45,569,177

V. FEEDSTOCKS (See Appendix for CAS Numbers)

permitting

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	NA	NA	FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

- IEPA Files
- Geophysical Survey - CID Facility, Technos Inc. 8/1984
- Special Waste Disposal Report Files - IEPA-DLNPC (CID #2)
- Monitoring Well Sample Results - CID #2, 3-9-82

E+E, Inc Files

- IEPA Files CID Info.
38 to 4 Calumet Expressway



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
IL D

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 167,972

02 ☒ OBSERVED (DATE: 3-9-82)

☐ POTENTIAL

☒ ALLEGED

04 NARRATIVE DESCRIPTION

Heavy Metals, Cl, Fl, N, Sulfate, and Phenol were detected in on-site monitoring wells (mw) - depths unknown. Refuse from "fly dumping" is allegedly buried outside of disposal area sideliners - leachate from this may be potential cause of lower water quality in mw's. The depth to the shallowest usable aquifer is 45-80'. A ground water ridge exists in CID #2 which causes the water to flow NW and East. Groundwater flow in the area is mainly east towards the Little Calumet River.

01 ☒ B. SURFACE WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 167,972

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION Refer to A

No surface water in the site's 3 mile radius is used for drinking water, but the Little Calumet River - adjacent to the site - is used for recreation (ie fishing). Run-off and leachate collection systems exist on-site. Surface impoundments have at least 2' freeboard and berms to prevent run-on. Lagoons have compacted clay liners and dikes have protective covers. The site also has perimeter leachate collection wells and trench drains which flow to collection sumps.

01 ☐ C. CONTAMINATION OF AIR

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

No Documentation of Air Contamination or Complaints

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

None Reported

CID #2 has Gas Flares. Gas Extraction wells exist at toe of disposal areas to flare off methane and monitor for possible gas migration.

01 ☒ E. DIRECT CONTACT

03 POPULATION POTENTIALLY AFFECTED: 1,328

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

The site is fenced, but if any contamination reached drinking water or surface water direct contact could potentially occur.

Refer to B, E, H, and I

01 ☒ F. CONTAMINATION OF SOIL

03 AREA POTENTIALLY AFFECTED: 173+ area

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

(Across) Surrounding Pig Mill
Alleged monitoring well contamination also indicates potential for soil contamination - this may be attributable to previous landfilling and "fly dumping" activities. All fill areas since WMI operations are enclosed by clay berms with a minimum of 20' undisturbed clay lining. Underlying clay tills are highly impermeable and should act as barriers to leachate migration into bedrock.

01 ☒ G. DRINKING WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: ~53+

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

The Silurian Niagaran Dolomite is the shallowest usable aquifer. There are ~14 private drinking water wells located within 3 miles of the site. Three of these wells are located 1/2 mile from the site's southern boundary. The rest of the population receives its drinking water from Lake Michigan.

01 ☒ H. WORKER EXPOSURE/INJURY

03 WORKERS POTENTIALLY AFFECTED: ~25

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

No known worker exposure, complaints, or injuries.
Refuse and fly dumping allegedly occurred on-site outside of current disposal area sideliners.

01 ☒ I. POPULATION EXPOSURE/INJURY

03 POPULATION POTENTIALLY AFFECTED: 167,972

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

The potential exists for population exposure or injury to occur if any alleged contamination reaches water used for drinking or recreation.



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE IL 02 SITE NUMBER D

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

Due to contamination detected in monitoring wells, the potential for soil contamination exists which could cause damage to flora. Flatfoot Lake and a forest preserve are located just across the expressway from CID#2 and the Pug mill.

01 ☒ K. DAMAGE TO FAUNA

04 NARRATIVE DESCRIPTION (Include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

Refer to J

01 ☒ L. CONTAMINATION OF FOOD CHAIN

04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

If damage to flora or fauna occurred, contamination of food chains in the Little Calumet River, Flatfoot Lake, and the forest preserve could potentially occur.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES

(Spills/runoff/standing liquids/leaking drums)

03 POPULATION POTENTIALLY AFFECTED: 167,972

02 ☒ OBSERVED (DATE: 3-9-82)

☒ POTENTIAL

☒ ALLEGED

04 NARRATIVE DESCRIPTION

Since wml operations have occurred on-site, each fill area is enclosed by clay berms and a minimum of 20' of undisturbed clay lining. However, previous land-filling and "fly dumping" activities may be a potential cause of lower water quality detected in monitoring wells.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY

04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None documented

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs

04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None documented

Effluent from the dewatering system enters the Sanitary Sewer System.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING

04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None Reported or Likely

The site is surrounded by the expressway, the railroad and the river. The site has a 24 hour guard, and the treatment area has a 6' fence. The perimeter of the remaining site area is also fenced.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Landfilling and "fly dumping" occurred prior to state permitting. The sludge drying beds located in CID#2 allegedly accept only sludge from publically owned treatment works that is not classified as hazardous waste.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 167,972

IV. COMMENTS

Pickle liquor and lime are mixed in the pug mill. The pug is collected in a concrete structure and taken to the landfill for co-disposal with refuse. Heavy metals and suspended solids are removed in the aqueous waste dewatering system. PH is also adjusted here. Four surface impoundments exist near the pug mill. They are used for storage of waste streams which go for treatment.

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

IEPA Files

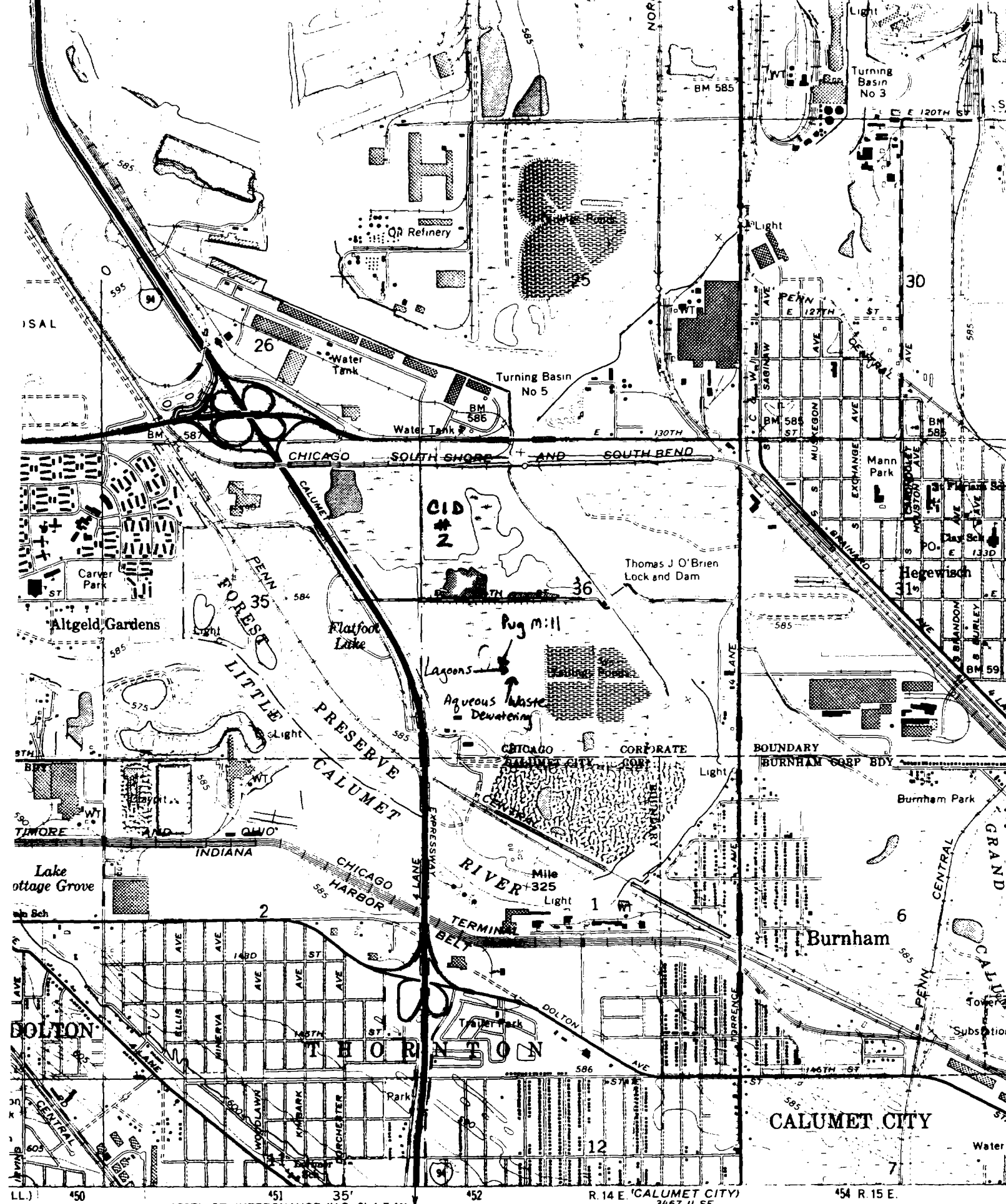
Info. from Fish and Wildlife Service - US Dept. of Interior

E4E, Inc. Files

IL4 IN Population Census - 1980, US Dept. of Commerce

Topographic Maps - 7.5 minute: Lake Calumet 1975, Calumet City 1980, Blue Island, IL 1973.

IN4 IL Water Bulletins and Info. from Phone Conversations with Local Water Depts. and City Engineers



Survey
gistration
ie

Lake Calumet, IL
QUAD

SCALE 1:24 000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

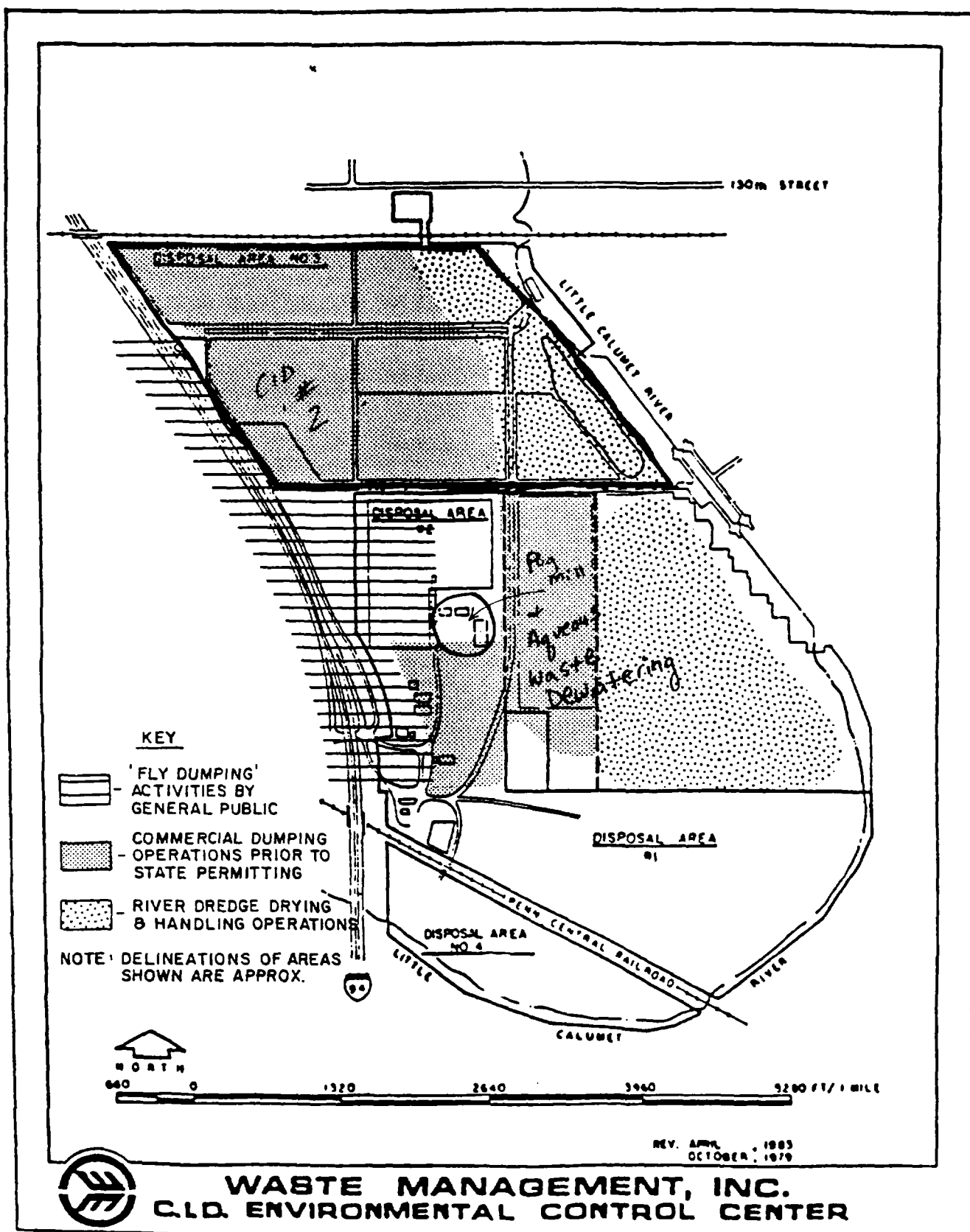


Figure 3. Map of previous disposal areas prior to WMI operations.
 Source: Conversations with personnel present during said operations
 & construction drawings of dredge drying operations

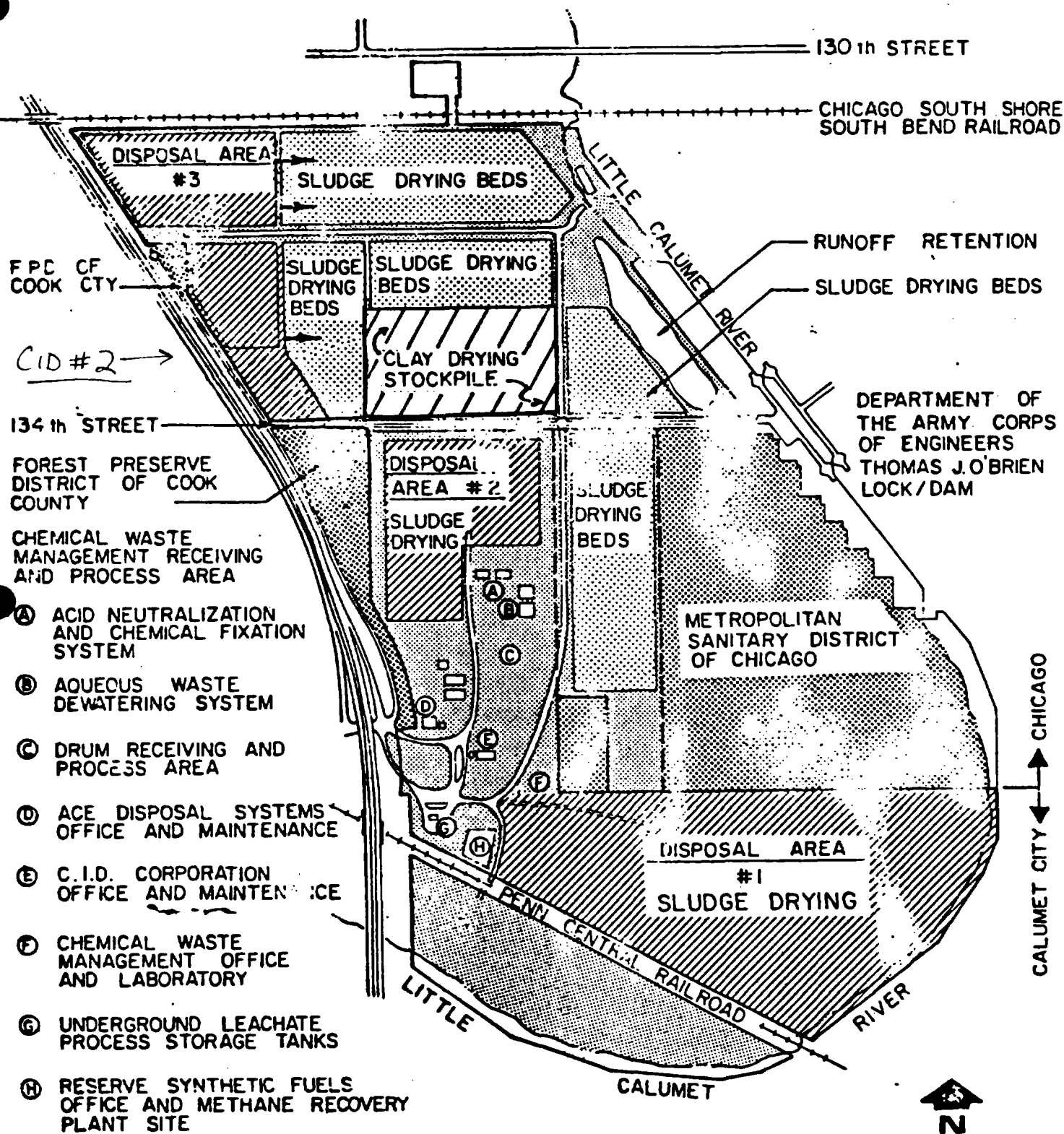
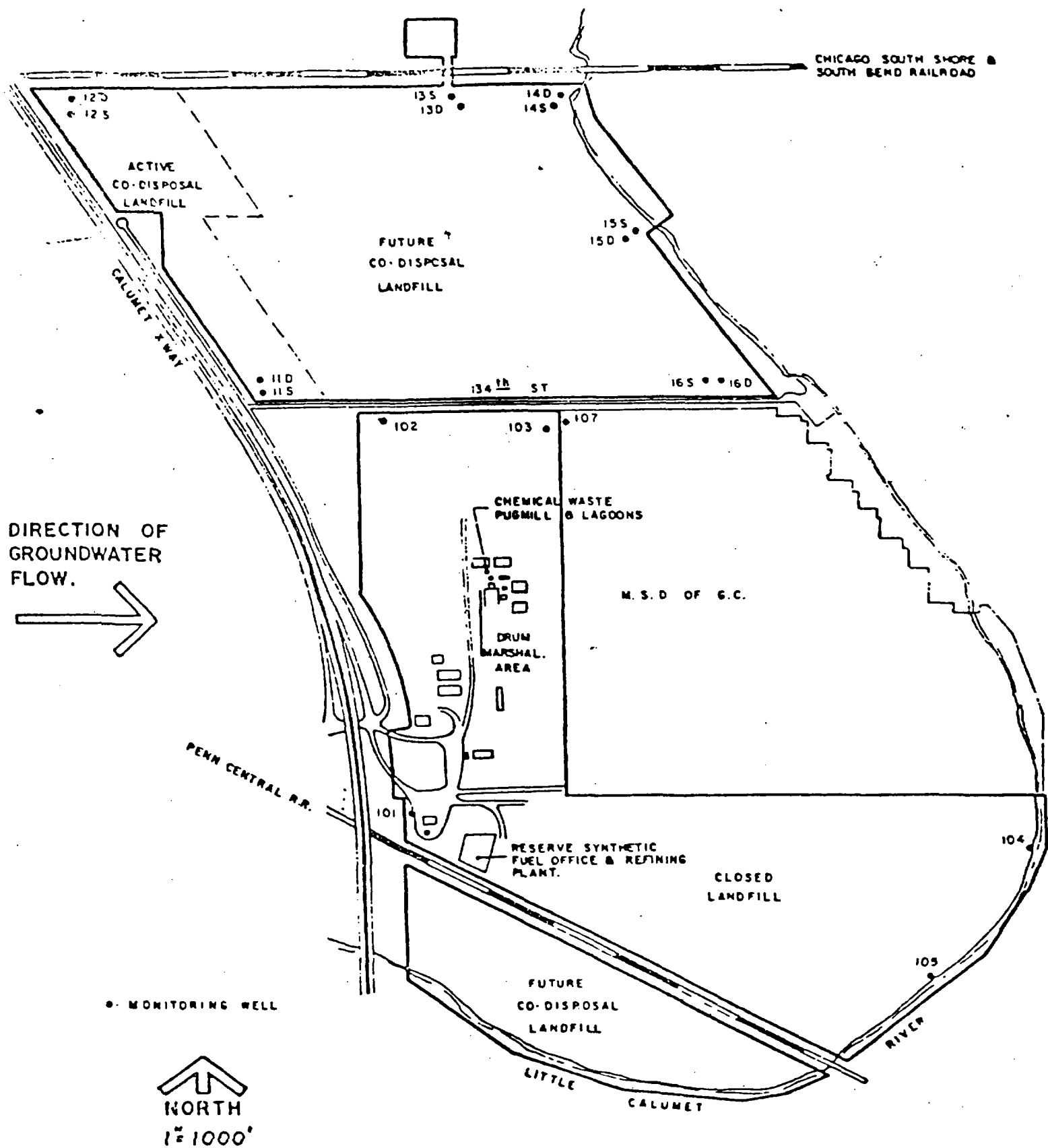


FIGURE 1
C.I.D. LANDFILL
WASTE MANAGEMENT, INC.

SCALE: 1" = 1/5 mi.

Location of Monitoring Wells



CID / CHEMICAL WASTE MANAGEMENT, INC.
CALUMET CITY, ILLINOIS



Waste Management, Inc.
3003 Butterfield Road
Oak Brook, Illinois 60521

PA DOCUMENTATION SHEET

 SITE CID # 2 (Incl. Pug Mill)
 IDENTIFICATION NUMBER _____

SOURCE NUMBER	DESCRIPTION OF SOURCE
1A, 1B, 1C, 1D	1A) QUAD NAME <u>Lake Calumet</u> SIZE: <u>7.5</u> or 15 YEAR <u>1975</u> 1B) QUAD NAME <u>Blue Island</u> SIZE: <u>7.5</u> or 15 YEAR <u>1973</u> 1C) QUAD NAME <u>Calumet City</u> SIZE: <u>6.5</u> or 15 YEAR <u>1980</u> 1D) QUAD NAME _____ SIZE: 7.5 or 15 YEAR _____
(2)	Geophysical Survey - CID Facility, Technos Inc., 8/1984
(3)	RCRA Inspection Report - CID#2, 3-6-81
(4)	Soil Investigation # 7105-0270 - CID#2, Walter H. Flood & Co, Inc.
(5)	Soil Investigation # 7105-0296 - CID#2, Walter H. Flood & Co, Inc.
(6)	CID#2 - Application for Permit - Solid Waste Management Site, IEPA 9-24-75.
	Closure Plan CID Landfill, Docket, 5-19-81, Revised 5-82, 19 pages.
(8)	Ground Water Monitoring Report - CID, US EPA, 3-19-82.
(9)	IEPA - DL/NPC - Special Waste Disposal Report Microfilm Files, CID#2
(10)	Amendment to Part A Application - General Info Permit Consolidated Review Program - CID#2, EPA-V, 3-12-81.

PA DOCUMENTATION SHEET

 SITE CID #2 (incl. Pug Mill)
 IDENTIFICATION NUMBER _____

SOURCE NUMBER	DESCRIPTION OF SOURCE
(11)	Population Census of IL, US Dept. of Commerce, 1980
(12)	IL Travel and Recreation Guide, Rockford Map Publishers, Inc. 1983
(13)	Environmental Assessment SCA Chemical Services Co. - Fred C. Hart Associates, Inc. 11-11-80, 28 pages.
(14)	Indiana Water Resource
(15)	Endangered Species - US Dept. of Interior, Fish & Wildlife Service
(16)	US Dept. of Interior - Fish & Wildlife Service Info. on Ind. Bat & Bald Eagle, 4-30-85.
(17)	Phone Log - Sue Ryan - Chemist - E4E to Mr. Monestere - Cal. City Water Superintendent, Public Water Supply, (312) 291-8155, 0830, 6-20-85.
(18)	Phone Log - Sue Ryan - Chemist - E4E, to Mr. Adduci - Cal. City Water Dept., Water Supply, (312) 744-7001, 11-27-85, 1110 am.
(19)	Phone Log - Cynthia Pugh - Environmental Scientist - E4E, to Cliff Gould - IEPA, Site Location / Info. (312) 345-9780, 1-7-85, 3:20 pm.
(20)	Phone Log - Sue Ryan - Chemist - E4E, to Ralph Falkenfall - Cal. Water Dept., (312) 744-7001, 7-16-84, 1:15 pm.

